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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,126	11/20/2000	Paul Thomas	60,130-884	4027

26096 7590 05/03/2002

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EXAMINER

SICONOLFI, ROBERT

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 05/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/647,126

Applicant(s)

THOMAS ET AL.

Examiner

Robert A Siconolfi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment filed on 3/20/02 has been received.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 19-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baumgartner et al (U. S. Patent no. 5,568,845) in view of Angerfors (U. S. Patent no. 6,269,914 B1).

Baumgartner et al discloses (figure 1 B) a tappet for a disk brake which has an internally threaded sleeve 7 and an externally threaded shaft 70 with a support element 81 which carries a seal 80. The support element provides a smooth surface on the annular skirt portion that fits over the end of the sleeve for another seal most closely identified by numeral 82 in the figure. Baumgartner et al does not disclose the seal 80 sealing an unthreaded portion of the shaft 70. Angerfors teaches a disk brake tappet that has a seal that seals against an unthreaded portion of the shaft (see figure 2 surface 42 and seal 41). Threads are not need along the entire surface of the shaft as shown by Angerfors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the seal bear against an unthreaded portion of the shaft as taught by Angerfors in the tappet of Baumgartner et al because sealing against a smooth surface is easier and more effective than a threaded surface and furthermore the reduction in the amount of threads need reduces machining costs.

Response to Arguments

4. Applicant's arguments filed 3/20/02 have been fully considered but they are not persuasive. Applicant has argued that combining Angerfors et al with Baumgartner et al destroys the intended function of Baumgartner et al.

Regarding claims 19-25, the examiner disagrees because the functioning of the device of Baumgartner is irrelevant since the claims are directed to the seal only. The seal of Baumgartner et al must merely be capable of use in the environment of a sleeve and shaft with an unthreaded section. Angerfors shows that a seal can be used in such an environment without hindering operation.

With respect to claims 26-33, the examiner disagrees because the cited function of Baumgartner et al does not depend on whether the shaft is threaded or not. The inner diameter of the seal must merely be smaller than the outer diameter of the shaft. If the inner diameter was smaller than the outer diameter of the threads but larger than the outer diameter of the grooves of the threads, then the device would not function as stated in the cited section of the reference. Slippage would occur until the top of a thread was encountered. Therefore, the inner diameter of the seal must be smaller than the outer diameter of the grooves of the shaft for the required frictional torque and the threads or lack thereof is irrelevant.

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The applicant further argues that the removal of threads would ruin the adjustment function of Baumgartner. Neglecting the fact that the instant invention has such a removal of threads, the examiner does not see how the removal of threads at the front of the shaft would hinder the full extension of the adjustment device. The threads that determine the capability of full extension are the threads at the rear of the shaft.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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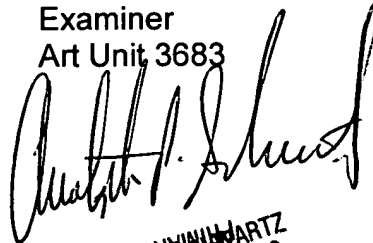
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Siconolfi whose telephone number is (703) 305-0580. The examiner can normally be reached on M-F 9 am-3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703) 308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

RS
May 1, 2002

Robert A Siconolfi
Examiner
Art Unit 3683



CHRISTOPHER J. SUMMERS
PRIMARY EXAMINER